

PENSTEMON ABSAROKENSIS, A NEW SPECIES OF
SCROPHULARIACEAE FROM WYOMING

ERWIN F. EVERT
1476 Tyrell, Park Ridge, IL 60068

ABSTRACT

A new species, *Penstemon absarokensis*, from Wyoming is described and compared with the morphologically similar *P. alpinus*, *P. glaber*, and *P. paysoniorum*.

Penstemon absarokensis was first collected by the author in 1974 during floristic studies of the North Fork Shoshone River drainage area in northwest Wyoming. This distinctive species is ecologically restricted to shifting scree and is known only from Park and Fremont Counties, Wyoming.

***Penstemon absarokensis* Evert, sp. nov.**

Planta perennis caulibus pluribus, 7–18 cm alta. Folia integra sursum minime reducta elliptica vel lanceolata, 2.5–7.0 cm longa, 7–20 mm lata. Thyrsus compactus secundus multiflorus, 3–10 cm longus, pedicellis glandulosis. Calyx 7–12 mm longus, segmenta acuminata inferne scariosa erosa marginata. Corolla caerulea glabra, 18–33 mm longa. Staminodium leviter expansum pubescens vel glabrum apice. Antherae loculi 1.5–2.0 mm longi hispidi reflexi (Fig. 1).

Plants perennial, low, glabrous (the inflorescence minutely glandular), several-stemmed, 7–18 cm tall, clustered from a slender or more frequently thickened, unbranched, suffrutescent caudex surmounting numerous fibrous roots; leaves little reduced upwards, entire, somewhat fleshy and slightly glossy, the margins papillate, the lower leaves petiolate, obtuse, elliptic-lanceolate or oblanceolate, the upper sessile, acute, elliptic to oblanceolate or ovate, 2.5–7.0 (–9) cm long, 7–20(–25) mm wide; inflorescence a compact, broad thyrses of 1–4 verticillasters, leafy, 3–10 cm long, 3–5 cm wide, the cymes 2–8 flowered, \pm secund, the pedicels minutely glandular; sepals 7–12 mm long, prominently scarious-erose margined, ovate or lanceolate with a long caudate-acuminate tip, the tip equaling or exceeding the basal portion, the basal portion minutely glandular; corolla 18–33 mm long, moderately ampliate, glabrous externally and within, obscurely bilabiate, the throat 7–11 mm wide (in pressed specimens), the tube 14–25 mm long, purplish-blue, the limb 4–8 mm long, bright blue, the upper lobes reflexed on living specimens;

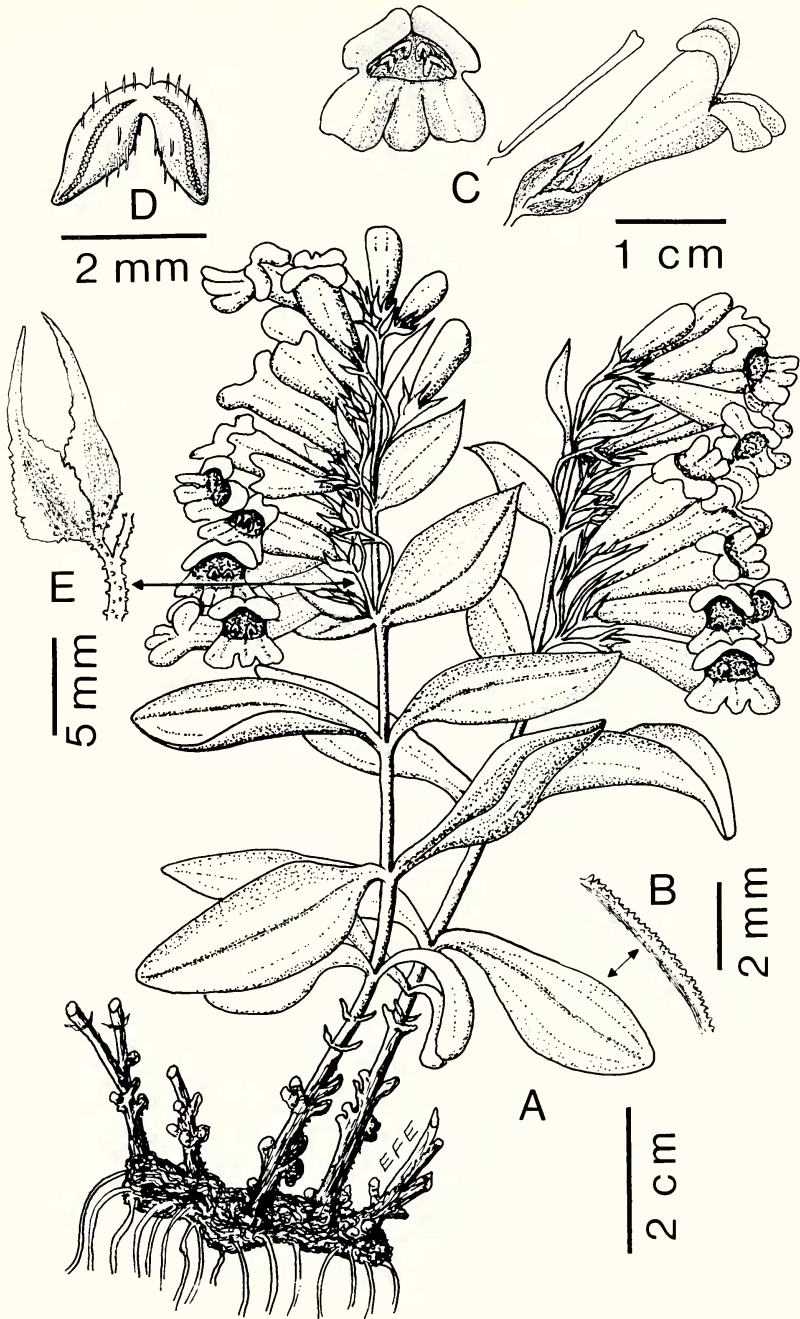


FIG. 1. *Penstemon absarokensis* Evert. A. Habit. B. Detail showing papillate leaf margin. C. Corolla and staminode. D. Anther sacs. E. Detail showing glandular pedicels and sepals. From Evert 4345.

staminode just reaching the orifice, slightly expanded and slightly lobed apically, sparsely bearded or glabrous apically; fertile stamens (anterior pair) projecting 2–4 mm beyond the orifice (in pressed specimens), the anther sacs 1.5–2.0 mm long, not explanate, reflexed, sparingly hispidulous over the entire surface, dehiscing nearly the entire length but not next to the connective, the suture margins papillate; mature capsules ovoid, acuminate, 8–12 mm long; seeds dark-brown, alveolate-reticulate, narrowly winged, 2–4 mm long.

TYPE: USA, WYOMING, Park Co., Absaroka Range, w. side of Clayton Mtn., ca. 5 km s. of Hwy. 14, T51N R107W S9 NW $\frac{1}{4}$, 2684 m; open, dry, shifting volcanic scree with *Astragalus vexilliflexus*, *Chaenactis alpina*, *Haplopappus acaulis*, *Lupinus argenteus*, *Oenothera caespitosa*, *Oryzopsis hymenoides*, and *Phacelia hastata*, 20 Jul 1982, *E. F. Evert 4345* (Holotype: RM; isotypes: MO, NY).

PARATYPES: USA, WYOMING, Fremont Co., on bluff ca. 23 km se. of Dubois, 1936 m, 30 Jun 1947, *Ripley and Barneby 8923* (NY); Park Co., Absaroka Range, on divide between Newton and Moss Crs. ca. 5 km n. of Hwy. 14, T52N R107W S5 SW $\frac{1}{4}$, 2623 m, 9 Jul 1979, *Evert 1479* (RM); ridge e. of Elk Fork Cr., ca. 1.6 km s. of Hwy. 14, T52N R106W S28 SW $\frac{1}{4}$, 2013 m, 16 Jun 1981, *Evert 2703* (RM); near the source of Canyon Cr., ca. 8 km s. of Hwy. 14, T51N R105W S18 SW $\frac{1}{4}$, 2928 m, 14 Jul 1981, *Evert 3162* (NY, RM); on divide above Cougar and Pagoda Crs., ca. 8 km s. of Hwy. 14, T51N R106W S15 NW $\frac{1}{4}$; 3044 m, 22 Jul 1981, *Evert 3258* (UC, RM); ridge e. of Sweetwater Cr., ca. 6.5 km s. of Hwy. 14, T52N R106W S6 NE $\frac{1}{4}$, 1982 m, 27 Jun 1982, *Evert 4051* (RM); ridge e. of Post Cr., ca. 8 km e. of Wapiti, T52N R104W S28 NE $\frac{1}{4}$, 1946 m, 11 Jul 1982, *Evert 4165* (RM); ridge e. of Newton Cr., ca. 0.8 km n. of Hwy. 14, T52N R107W S21 SW $\frac{1}{4}$, 2074 m, 7 Aug 1982, *Evert 4686* (RM).

Penstemon absarokensis grows on open, dry shifting, scree derived from volcanic material or rarely on river gravels at elevations of 1936–3044 m in or along the Absaroka Range, Park Co. and Fremont Co., Wyoming. It flowers from mid-June through July depending on elevation. The name is given in reference to the Absaroka Range of northwestern Wyoming.

Penstemon absarokensis is allied to the species comprising section *Glabri* (Rydb.) Pennell and most closely resembles *P. paysoniorum* Keck, *P. glaber* Pursh, and *P. alpinus* Torr. *Penstemon absarokensis* resembles *P. paysoniorum*, a southwestern Wyoming endemic, in its low stature, tufted habit, and sepal shape but differs in its significantly larger, glabrous corollas, larger sepals, wider leaves, and larger, sparsely short-pubescent, reflexed anthers. Both *P. glaber*, which is widespread in Wyoming, and *P. alpinus*, which is restricted to the southeastern part of the state, resemble *P. absarokensis* in flower size but differ in larger stature, more completely dehiscent

anthers, sepal shape and length, and in their usually internally pubescent corollas. Furthermore, these two species are not restricted ecologically to shifting scree slope habitats as *P. absarokensis* apparently is. With its consistently low stature, large glabrous flowers, and somewhat fleshy thickened leaves, *P. absarokensis* is a highly distinctive and easily recognized species.

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